COMPLETE LISTING OF CLAIMS

1 (CURRENTLY AMENDED) A method of assessing a predisposition to a physiological disorder associated with magnesium binding defect in an individual, comprising ~~compising~~: measuring the level of peptide in a sample of body fluid of said individual, said peptide comprising one or more of amino acid sequence set forth in SEQ ID NO:1, or amino acid sequence set forth in SEQ ID NO:2, or amino acid sequence set forth in SEQ ID NO:4, and comparing said level of peptide to a standard, whereby a significantly lower level of said peptide is indicative of a predisposition of said individual to said physiological disorder.

2 (ORIGINAL) The method of claim 1 wherein said predisposition to a physiological disorder associated with magnesium binding defect is a predisposition to presenting preeclampsia during pregnancy.

3 (ORIGINAL) The method of claim 2 wherein the level of said peptide in said sample is measured by an immunological assay that can indicate the presence of one or more of amino acid sequence set forth in SEQ ID NO:1, or amino acid sequence set forth in SEQ ID NO:2, or amino acid sequence set forth in SEQ ID NO:4.

4 (ORIGINAL) The method of claim 3 wherein said immunological assay utilizes a monoclonal antibody.

5 (ORIGINAL) The method of claim 4 wherein said monoclonal antibody cross reacts with each of said peptides.

6 (ORIGINAL) The method of claim 3 wherein said immunological assay is an enzyme-linked immunosorbent assay, and said sample of body fluid is blood.

7 (ORIGINAL) The method of claim 1 wherein said predisposition to a physiological disorder associated with magnesium binding defect is a predisposition to salt-sensitive essential hypertension.

8 (ORIGINAL) The method of claim 7 wherein the level of said peptide is measured by an immunological assay that can indicate the presence of one or more of amino acid sequence set forth in SEQ ID NO:1, or amino acid sequence set forth in SEQ ID NO:2, or amino acid sequence set forth in SEQ ID NO:4.

9 (ORIGINAL) The method of claim 8 wherein said immunological assay utilizes a monoclonal antibody.

10 (ORIGINAL) The method of claim 9 wherein said monoclonal antibody cross reacts with each of said peptides.

11 (ORIGINAL) The method of claim 8 wherein said immunological assay is an enzyme-linked immunosorbent assay.

12 (ORIGINAL) The method of claim 7, further wherein said method distinguishes between salt-sensitive essential hypertension and salt-resistant essential hypertension disorders in an individual.

13 (ORIGINAL) The method of claim 1 wherein said predisposition to a physiological disorder associated with magnesium binding defect is a predisposition to type 2 diabetes mellitus associated with the magnesium binding defect.

14 (ORIGINAL) The method of claim 13 wherein the level of said peptide is measured by an immunological assay that can detect the presence of one or more of amino acid sequence set forth in SEQ ID NO:1, or amino acid sequence set forth in SEQ ID NO:2, or amino acid sequence set forth in SEQ ID NO:4.

15 (ORIGINAL) The method of claim 14 wherein said immunological assay utilizes a monoclonal antibody.

16 (ORIGINAL) The method of claim 15 wherein said monoclonal antibody cross reacts with each of said peptides.

17 (ORIGINAL) The method of claim 14 wherein said immunological assay is an enzyme-linked immunosorbent assay.

18 (ORIGINAL) The method of claim 13, further wherein said method distinguishes between lipid-induced type 2 diabetes mellitus and type 2 diabetes mellitus associated with magnesium binding defect in an individual.

19 (ORIGINAL) A method for monitoring progress in treatment of a physiological disorder associated with magnesium binding defect in an individual, comprising:

a. measuring the level of peptide in a sample of body fluid of said individual, said peptide comprising one or more of amino acid sequence set forth in SEQ ID NO:1, or amino acid sequence set forth in SEQ ID NO:2, or amino acid sequence set forth in SEQ ID NO:4;

b. comparing said level of peptide to the level of said peptide after treatment, whereby a significant increase in the level of said peptide is indicative of the progress of treatment of said individual.

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